

Gordonia concentricatrix. Burkill,
(Kelat samak, Samak pulut, Kelat merah—Malay)

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(With one plate)

This new species, of which a botanical description was published in pages 152 and 153 of No. 76 of the Society's Journal, is illustrated in the frontispiece. It is a large evergreen tree attaining a height of over 100 feet with a maximum girth so far recorded of $8\frac{1}{2}$ feet at $4\frac{1}{2}$ feet from the ground. The stem is cylindrical and slightly thickened at the base, but not buttressed. The bark has been variously described as light brown, reddish brown, and fawn-coloured, and peels off in flakes a foot or more in length and an inch to three inches wide, the peeling usually being from below upwards. The flakes in falling leave a light terra-cotta coloured smooth new bark, marked with lozenge-shaped concentric scars resembling a contour map. The scars are not always as conspicuous as those shown in the plate, but are always perfectly evident, and can at any time be exposed by removing the loose bark. The scars are also clearly visible on the inside of the old bark, but tend to disappear with age on the outside. The bark, when cut or wounded, exudes a dark blood red or crimson sticky juice, which turns black on drying. Below the bark the blaze is white. The crown is fairly open.

It is not unlikely that the tree flowers and fruits twice yearly, the fruit taking about 6 months to ripen. In Selangor on the 21st May, 1917, the tree was in full flower; on the 31st May, 1916, the stamens had fallen, and the fruit was just beginning to form; in June, 1916, ripe capsules were collected; in July, 1917, old fallen fruit was found on the ground; in October, 1917, the fruit of the flowering of the previous May had not yet ripened. In Pahang the tree is said to flower in December and January; in August, 1917, neither flower nor fruit was obtainable.

Gordonia concentricatrix is somewhat uncommon but is widely distributed, being recorded from Malacca and the Dindings, as well as from Selangor and Pahang. So far as is known at present it grows only at low elevations, probably not above 1000'. In the Rantau Panjang Reserve in Selangor it occurs over a small area in large numbers, 25 trees from 15" to $8\frac{1}{2}'$ (average 44") in girth at breast height having been counted on two acres. This is however exceptional and, elsewhere it occurs sporadically. Its chief associates in the Rantau Panjang Reserve, where the soil is a loam,

are *Ochanostachys amentacea* and various species of *Shorea*, with *Eugeissonia tristis* in the under-growth. In the Bangi Reserve in Selangor it is found with Kelat Merah (*Eugenia* sp.), and its resemblance to this tree no doubt accounts for its being known to some Malays by the same name. The *Eugenia* bark is similar in colour to that of the *Gordonia*, but does not peel off in the same long flakes. The *Eugenia* also has scars on the new bark, but they are not very conspicuous and are wavy rather than concentric. Finally the blaze of the *Eugenia* is quite dry.

Gordonia concentricatrix yields a tough close-grained pinkish to red-brown timber somewhat lighter than water and said by the Malays to be suitable for house-building. The bark is used in Pahang for dyeing fishing nets and clothing for rough use, cloth treated three times with the dye becoming, so it is said, fairly waterproof.

The following corrections should be made in the botanical description already to referred to:—

- (i) Under figures 10 and 11 “Abdul Rawi” should read “Abdul Rani.”
- (ii) Under figure 11 “898” should read “878.”
- (iii) In the particulars of occurrence the sentence “ex Selangor.....et cum fructibus” should read “ex Selangor ad Rantau Panjang collegerunt sub numero C. F. 878 J. G. Watson et Abdul Rani mense Maio cum floribus et mense Junio cum fructibus.”



GORDONIA CONCENTRICATRIX, BURKILL.

